Broadband Policies in Japan

Experiences and Challenges

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Yasu Taniwaki joined the Ministry of Posts and Telecommunications (Ministry of Public Management, Home Affairs, Posts and Telecommunications) in 1984. After serving in several positions, including ICCP Division of the OECD (1987-1989), he served as Deputy-Director of the Telecommunications Policy Division (1993-1997), where he dealt with several telecommunications policies such as the reorganization of NTT, and a variety of deregulation programs of the Telecommunications Business Law (TBL). After serving as Secretary to the Minister of Posts and Telecommunications (2000-2001), he served as Director for Telecommunications Policy, where he drafted a report on new Japanese telecom competition schemes compiled by the Telecommunications Council in August 2002 and a report on layered competition models in the IP age, compiled by the Study Group on New business Models in June 2002. He also contributed to setting up the Telecommunications Dispute Settlement Commission and Japanese Universal Service Fund, as well as to introduce the concept of "dominant regulations" through revision of the TBL in 2001. He has served in his capacity since June 2002.

••Introduction

Good afternoon, ladies and gentlemen. I appreciate that I had an opportunity to introduce the broadband policies in Japan. How to proceed with the deployment of broadband is an important policy for every country, but we still don't have any clear cut and specific solutions for effective broadband deployment.

Today, I would like to introduce the current status of Japanese broadband deployment and the role of the government. And, I would like to share the headache every policymaker has suffered from this broadband deployment issue. •

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•My presentation includes the three items,

- First, the current status of broadband deployment in Japan;
- Second, the promotion of new competition policies; and,
- The promotion of development of broadband infrastructure.

••The current status of broadband deployment in Japan

I would like to start with the current status of broadband deployment in Japan.

• An overall program for broadband deployment has been embodied in the "e-Japan Strategy" decided on January 2001 by the IT Strategy Headquarters of the Japanese Government.

•This strategy is characterized by having set the specific target of broadband deployment. As shown in this slide, the strategy has
"aimed to provide high-speed always-on access networks to at least 30 million households and ultra high-speed always-on access to 10 million households" by the year 2005.
Ultra high-speed means the speed from 30 Mbps to 100 Mbps.

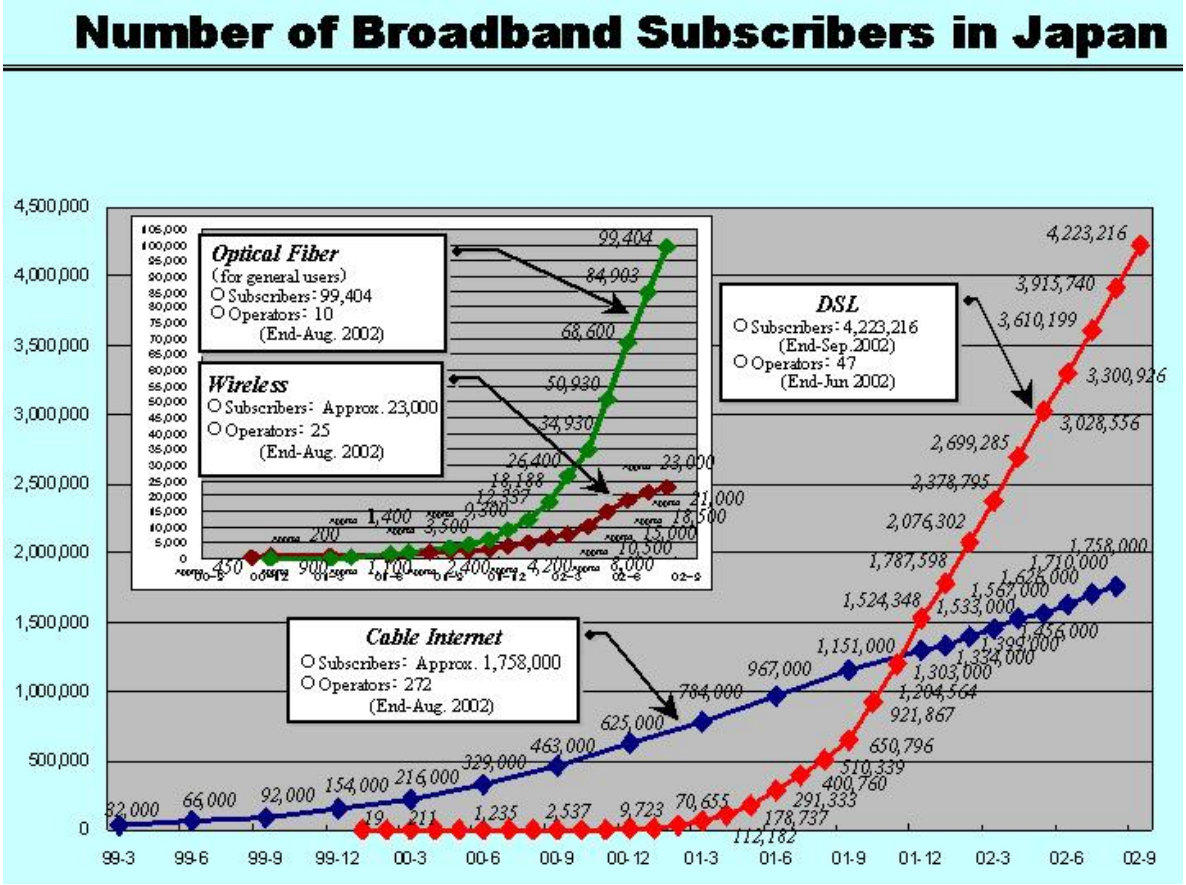
To realize this goal, the strategy has set four policy pillars.

- First, the development of network infrastructure and the promotion of competition;
- Second, the promotion of e-commerce;
- Third, the rapid realization of e-government; and
- Fourth, human resource development.

Where I would like to focus today is on the first pillar, that is, on the government policies for development of the network infrastructure and the promotion of competition.

•Before going into the policy issues, I would like to mention just briefly the current status of the Japanese broadband market. Looking at the number of subscribers, the number of DSL subscribers has amounted to 4.22 million. On the other hand, the number of CATV internet subscribers has amounted to 1.76 million and the number of optical fiber service has reached one hundred thousand. The number of DSL subscribers especially has been

growing very rapidly. Actually, during the last twelve months, the number of subscribers has increased by eight times.

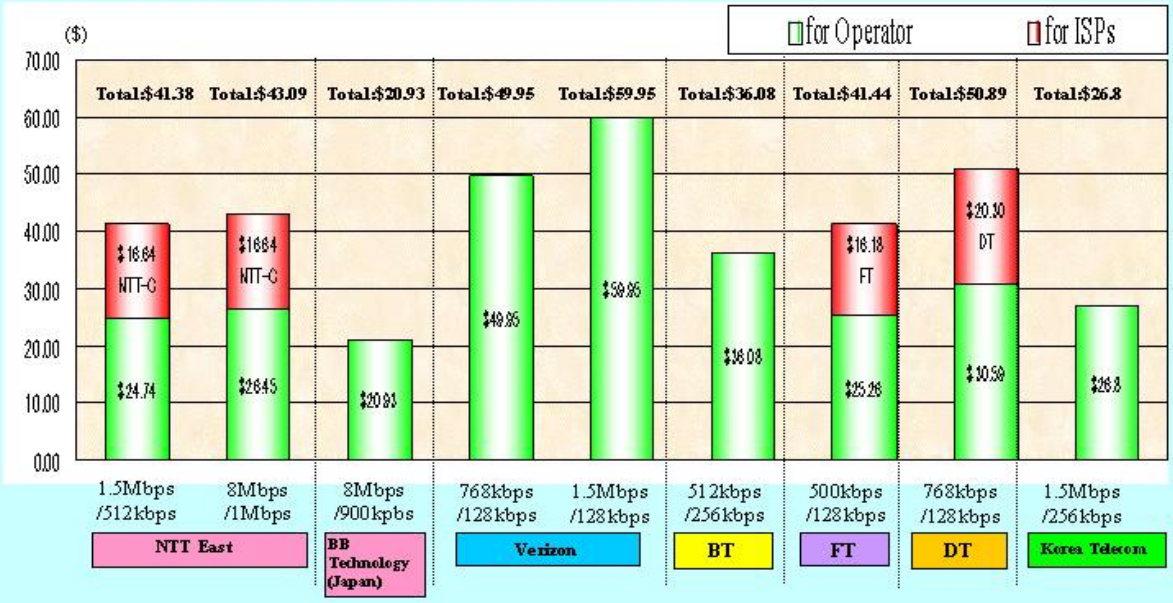


One of the reasons for this increase can be found in the establishment of collocation and unbundling rules for DSL service providers planning to provide their DSL services using access networks of NTT East and West. As you can see from this slide, this rule has led to a price reduction through competition among more than 50 providers and eventually to the remarkable increase of DSL subscribers starting from the year 2001.

• Please look at the next slide on tariffs for DSL services. In Japan, DSL services are provided for about 15 dollars for 1.5 Mbps service and about 25 dollars for the recently introduced 12 Mbps service. Compared with those in other major countries, this is the least expensive price level. This explosive increase in the number of DSL subscribers has replaced the dial-up internet access to always-on internet access with a fixed rate, which has made end users open the door to broadband services. Once people experienced broadband, they will not go back to the previous era. They are eager to enjoy the higher speed service.

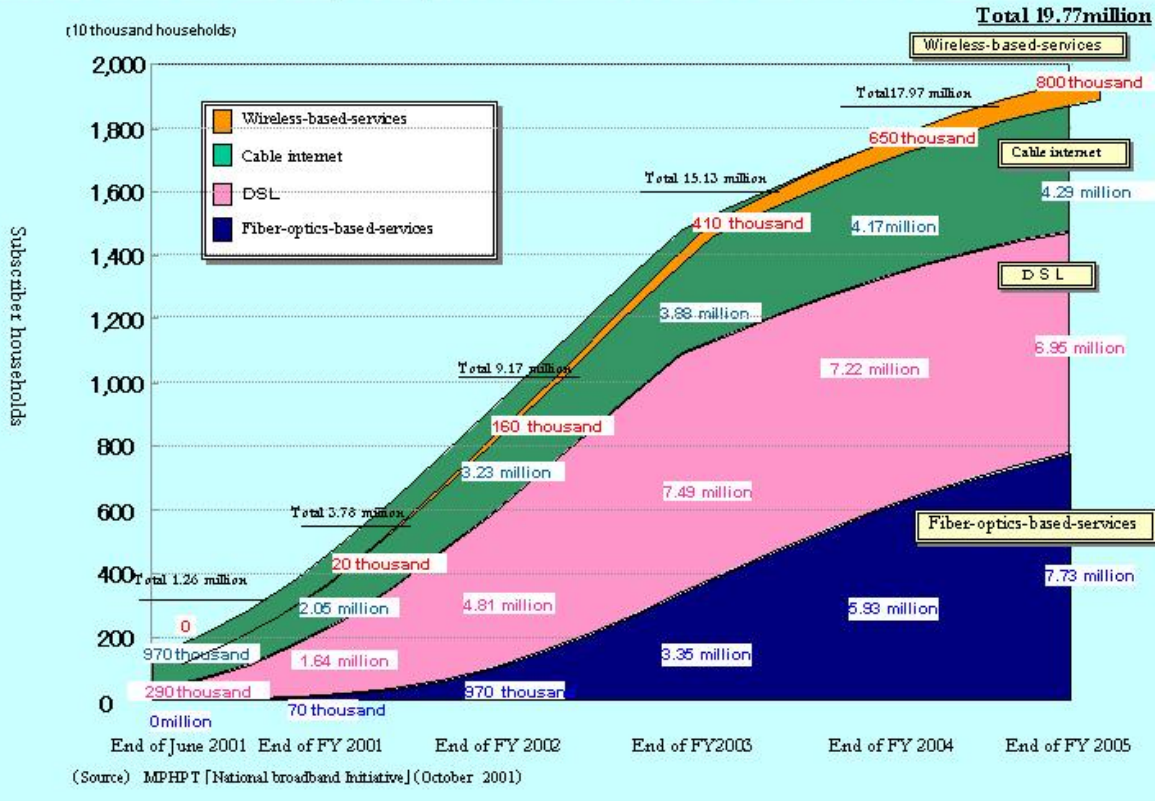
Now, how many Japanese people do you predict will shift to the broadband world by the year 2005? Last October, the Japanese Telecommunications Ministry (MPHPT) made

Charges for DSL Services



Note:
1) Those of NTT-East, BB Technology and BT are as of June 2002. Others are as of February 2002.
2) Tax not included.

Predicted Deployment of Broadband Services



(Source) MPHPT「National broadband Initiative」(October 2001)

public an estimate of broadband service subscribers in the report "Broadband Initiatives." According to that report, by the year 2005, the number of broadband service subscribers in Japan will reach about 20 million households. However, the actual growth curve has already exceeded this prediction. The Ministry is now revising this prediction reflecting the recent development of the broadband service markets.

•• Promotion of new competition policies

•I would like to now move on to the policy issues pertaining to how to accelerate the speed of broadband deployment in Japan. The bottom line is;

- First, the necessity for change from the PSTN-based competition model to a new regime corresponding to the IP age; and,
- Secondly, the necessity for assistance by the government to promote the development of broadband infrastructure.

To begin, I would like to mention the recent development of new competition policies. They are two items:

- First, the overall change of the competition models reflecting the progress of IP technology; and,
- Second, the consideration of layered competition models corresponding to the emergence of new business models.

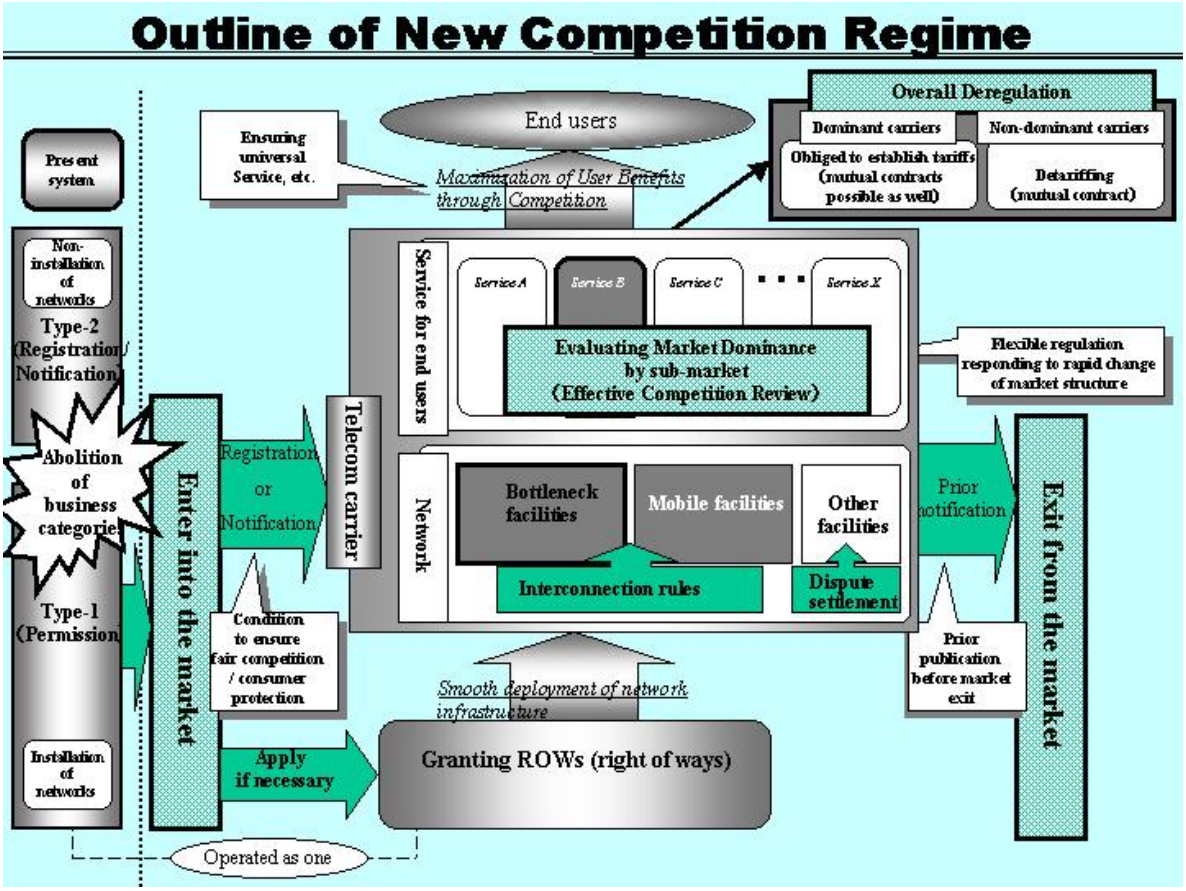
•The Japanese telecommunications market was liberalized in 1985, in the regulatory framework to classify telecom service providers based on facilities ownership. That is, focusing on the importance of network facilities as social infrastructure, relatively strict regulations have been posed on Type-1 business carriers which build and own infrastructure, compared with other service providers known as Type-2 business carriers.

•This framework, however, has been losing its raison d'etre, followed by the diversity of the business models along with the progress of IP technology. That is the reason why Type-1 and Type-2 business categories will be abolished as we move to the new competition models which have been scheduled to debut next year through the revision of the Telecommunications Business Law.

•This new regime is quite similar to the approach recently taken by the EU. That is, the new framework conceptually distinguishes:

- the B2C market, that is, the service market where carriers provide services to end users; from
- the B2B market, that is, the service market among service providers.

To be more specific, regarding the B2C market, market definition will be carried out through the effective competition review, and consideration will be given on whether



market dominance exists or not in each respective market. Once it is recognized that market dominance does not exist, this effectively competitive market will be deregulated. That means, for example, tariff regulation in this market will be lifted. With regard to the DSL market, NTT East and West has only a 40% share of the market through severe competition, although they have the bottleneck facilities in the local market. In this DSL market, it is already impossible to find any reason to impose asymmetric service regulations on NTT East and West.

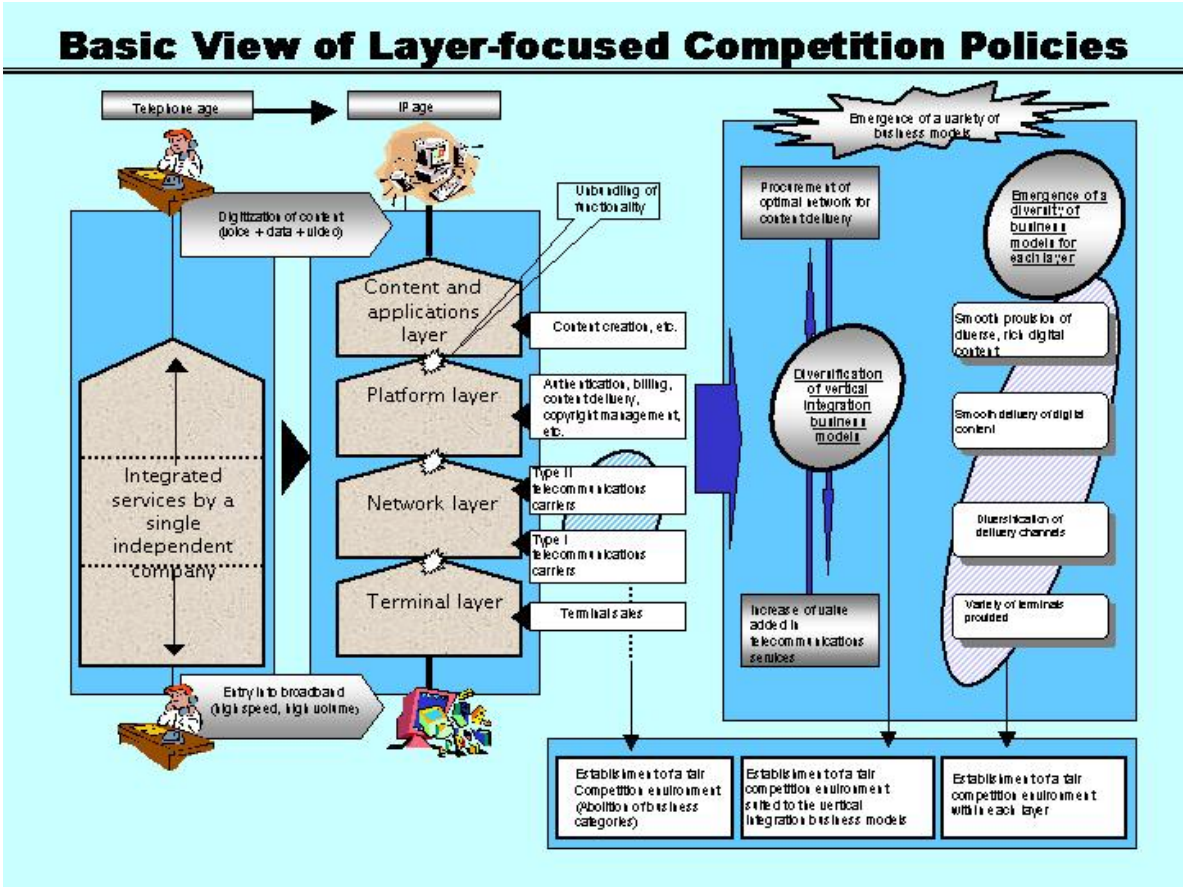
On the other hand, interconnection rules to open up the bottleneck facilities still work quite effectively even in the provision of new services such as DSL. There exists an idea that this kind of open policy does not lead to facility based competition, but I believe that the important issue is how to set the economically rational access charge, etc., which ensures a fair rate of return for dominant carriers, which is irrelevant to the discussion on effectiveness of the interconnection rules.

Of course, some other important policies should be initiated together to promote facility based competition. For example,

- First, establishment and improvement of Rights of Ways (ROWs) rules;
- Second, the promotion of newly emerging access networks such as wireless LAN; and,
- Third, the promotion of new entries into the telecom market from other public utility field such as electric power companies.

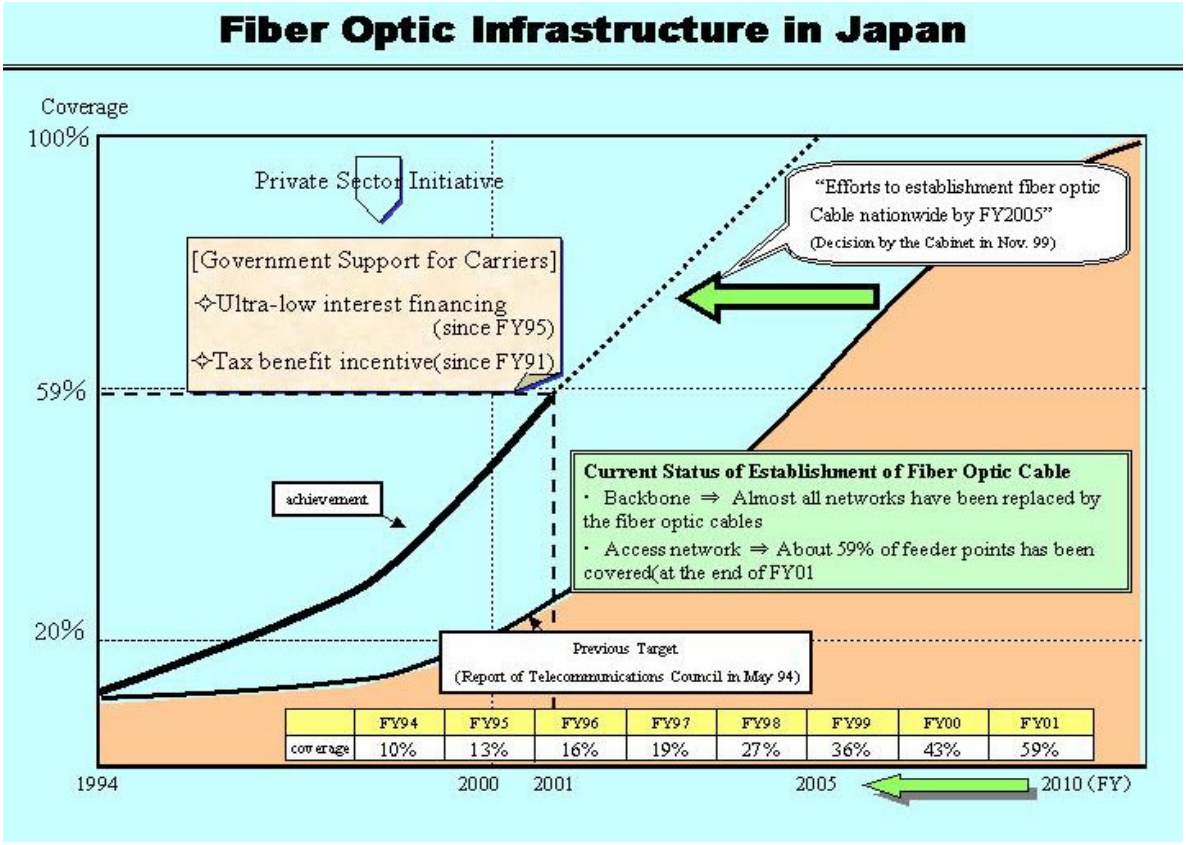
To achieve these, the Ministry has already been actively taking several related measures.

• The other policy issue I would like to raise today is the importance of the discussion on new competition policies focusing on each layer of emerging business models. That is, the profitability of traditional telecommunications services to transport traffic has been in decline and this tendency is envisaged to continue. In this context, every telecom carrier is forced to enhance their business field to upper layers such as the content and application layer. This means the emergence of new business models with the structure of vertical integration. In this case, for example, there is a possibility that market dominance in the telecom service layer will be abused in other layers, leading to the distortion of the market as a whole. This slide (below) illustrates one example of layered competition models and this kind of discussion on the relationship between the market dominance of each layer and vertically integrated business models.



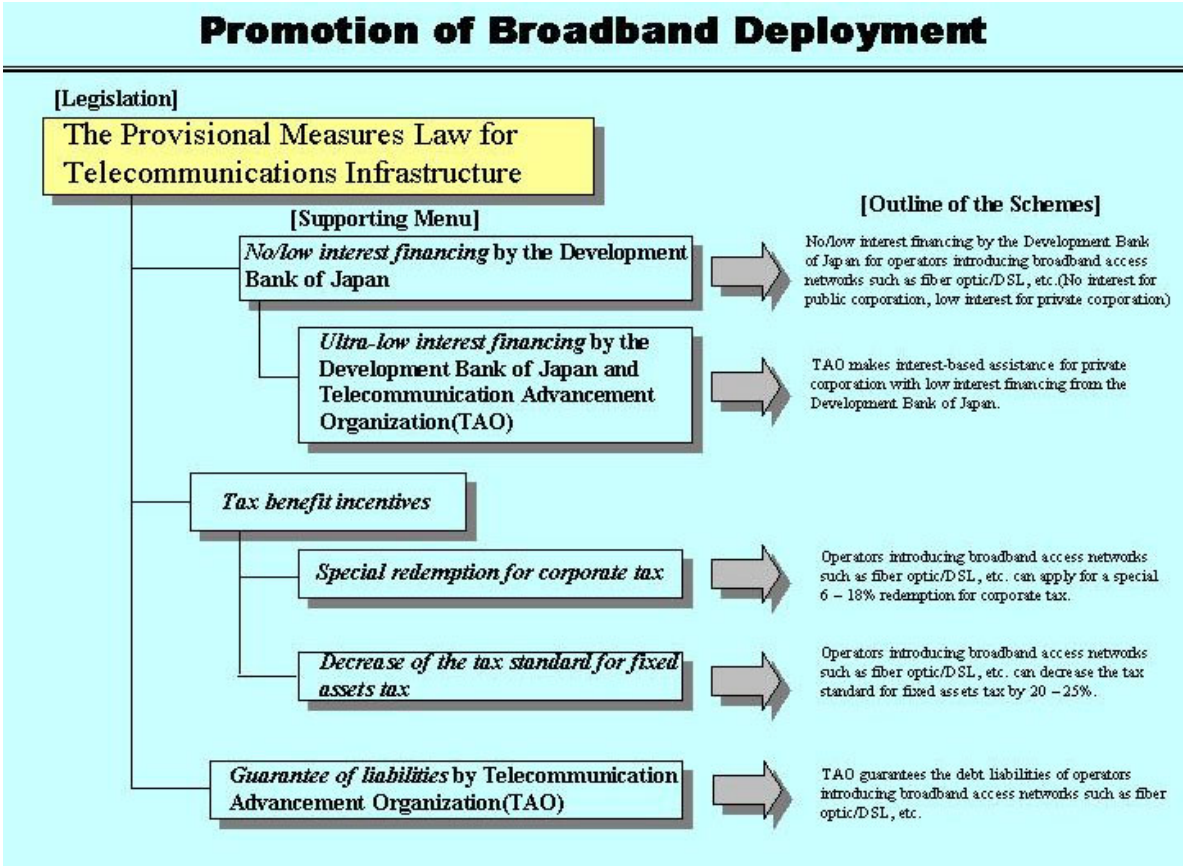
••Promotion of development of broadband infrastructure

•I would like to mention another issue, just briefly, concerning the development of the broadband infrastructure. The Japanese government has a plan to accomplish the nationwide FTTC(Fiber To The Curb), by the year 2005. FTTC is, as you know, different from FTTH, but the bottom line of this plan is to ready the environment for corresponding to the broadband demand with 100Mbps. As of the end of March 2002, the installation rate of the FTTC reached about 59% in line with the plan.



•The installation of fiber networks is evidently the role of the private sector. The role of the government is to ease the financial burden of the common carriers. More specifically, the government offers carriers incentives such as:

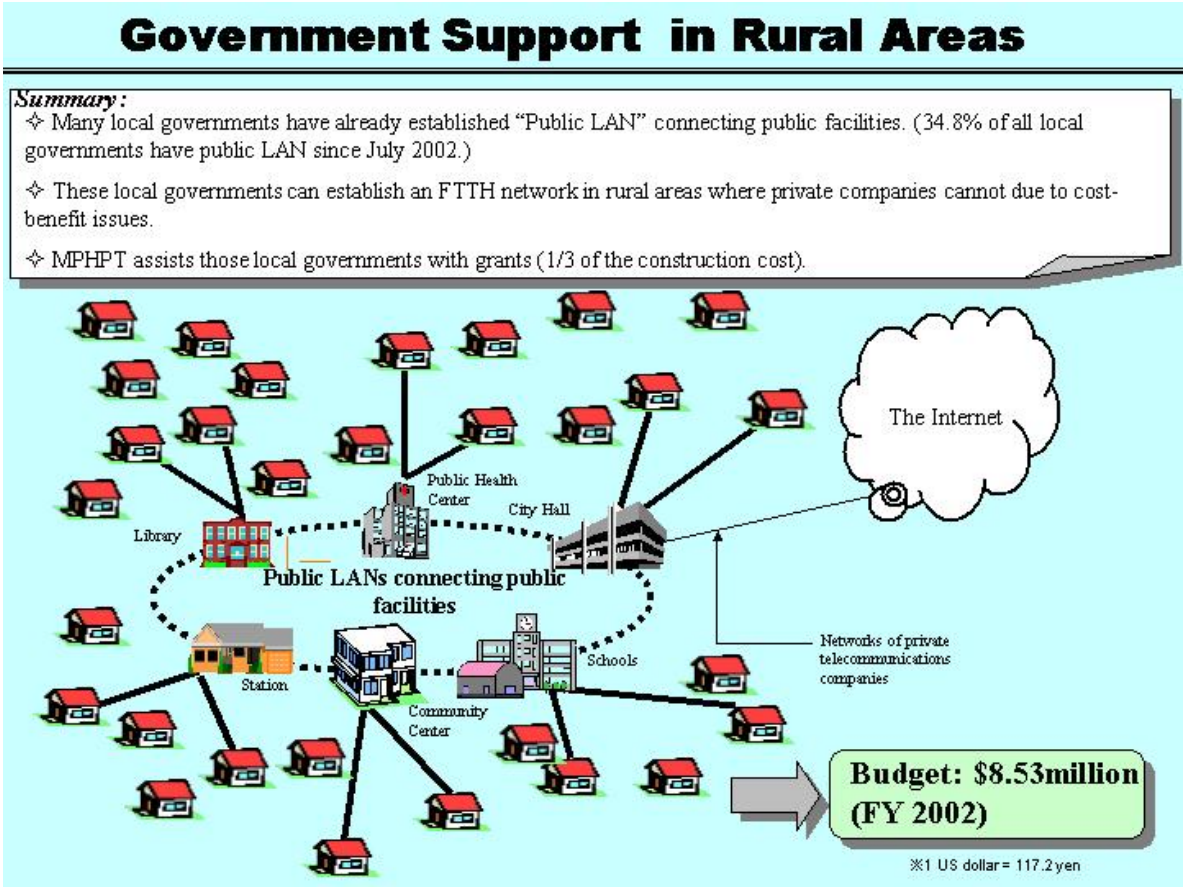
- Loan systems with interest rates lower than the market rate, which is available to any carrier with a fiber network installation plan; and,
- Tax deductions for investment by carriers for digitization.



• At the same time, focusing on the deployment of broadband in rural areas is also an important issue. With regard to this issue, the Ministry has set up several plans. For example,

- the plan to subsidize the cost of establishing the Local Area Networks (LANs) using fiber networks developed by local governments for public services, in return, to allowing common carriers to use the surplus capacity of these networks on a non-discriminatory basis; and,
- the plan to subsidize the cost of constructing towers used by mobile carriers to set up base stations for their mobile phone services in rural areas.

These plans have been introduced and used by common carriers.



••Concluding remarks

•In addition to the policies I mentioned today, it is necessary to proceed with related policies such as;

- The development of the Digital Rights Management (DRM) system to ensure the smooth and safe delivery of content on the networks;
- The promotion of R&D on an open platform basis to develop next generation technology, such as IPv6 related technology; and,
- The establishment of consumer protection rules corresponding to the new forecasted social problems that may take place in cyber space.

I am afraid, after you hear about the Japan's struggle for the deployment of broadband, your headache might become worse than ever before. But, I have no doubt of the importance of exchanging experiences of each country and discussing on an interactive basis. So, we may together find better ways towards the healthy deployment of broadband markets throughout the world. I would be pleased if my presentation today has been helpful input to your consideration on broadband policies.

Thank you.